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AUTHOR Fisher, Jeffrey D.; And Others
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ABSTRACT

A 2 (touch-no touch) x 2 (sex of confederate) x 2 (sex of subject) between subjects design tested the affective and evaluative consequences of receiving an interpersonal touch in a Professional/Functional situation. It was found that the affective and evaluative response to touch was uniformly positive for females, who felt affectively more positive and evaluated the toucher and the environmental setting more favorably than in no-touch conditions. The male response to touch was more ambivalent. (Author)

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HANDS TOUCHING HANDS: AFFECTIVE AND EVALUATIVE EFFECTS OF AN INTERPERSONAL TOUCH*

Jeffrey D. Fisher†
University of Connecticut

Marvin Rytting and Richard Heslin
Purdue University

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FOOTNOTES

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†Send reprint requests to Dr. Jeffrey Fisher, Department of Psychology, University of Connecticut, U-20, Storrs, Connecticut 06268. This research was supported in part by National Science Foundation Grant GS-40329 to Donn Byrne, principal investigator, and Grant GS-2893 to Richard Heslin, principal investigator.

HANDS TOUCHING HANDS: AFFECTIVE AND EVALUATIVE EFFECTS OF AN INTERPERSONAL TOUCH

Academic interest in touch is evidenced by commentaries which have approached touch from theoretical and applied perspectives (Burton & Heller, 1964; Cashar & Dixson, 1967; Johnson, 1965; Kaufman, 1971; Montagu, 1971), and from a humanistic standpoint (Egan, 1970; Schutz, 1967, 1972; Watson, 1972). In addition, popular concern about touch is highlighted by the interest in recent books on human interaction which have dealt with touching (Davis, 1973; Fast, 1971; Morris, 1973). Touching has even reached Sesame Street, where one song encourages "Go ahead and touch; go ahead and feel; reach out and see if what you see is real" and get past the point "when you were afraid to touch something beautiful."

In past experimental research, the effects of early tactile stimulation have been investigated with both human and animal young. In animal work on contact needs in young monkeys (Harlow, 1971) and on the effects of early handling, stimulation, and stress (Denenberg & Rosenberg, 1967; Denenberg & Whimbey, 1963; Levine, 1960), investigators have found that early contact and handling are beneficial, and even essential to the intellectual, emotional, and social growth of animals. The essential nature of early touching for human infants was first established by the classic work of Spitz (1946), and more recent work with infants (see Montagu, 1971; Morris, 1973) indicates that tactile stimulation is important for emotional, intellectual, and physiological development.

Studies which have been concerned with the effects of touch on adults, however, have found that touch may have either positive or negative effects.

In terms of the potential positive effects of touch, Aguilera (1967) found that touch increased verbalization and improved attitudes toward nurses among psychiatric patients, and Pattison (1973) reported that touch in counseling sessions precipitated self-disclosure on the part of clients. In addition, Bardeen (1971) found that subjects described an experimental confederate with whom they interacted by means of touch more positively than the same confederate in verbal only or visual only conditions, and Geis and Viksne (1972) reported that subjects receiving and reciprocating back rubs experienced a drop in palmar sweat index.

As any man who has been slapped for "making a pass" can testify, however, the effect of touch is not always positive. In this regard a number of studies have shown that touch can fail to have positive effects, and may even have negative effects. For example, Walker (1971) reported that communicating by means of touch made subjects feel anxious and generally uncomfortable. In addition, in encounter group research, level of trust (Clarke, 1971) and empathy (Poaster, 1971) did not differ in touch and no touch conditions.

The varying reactions to being touched observed in past studies may stem from the nature of touch: while the message of touch has an inherent ambiguity (Nguyen, Heslin, & Nguyen, in press), touching usually has a fairly clear intentionality. In effect, touch implies that a communication is intended, but the content of the communication may not be clear. In general, it is assumed that touch is an essentially positive stimulus for the recipient to the extent that it does not: (a) impose a greater level of intimacy than the recipient desires (e.g., Argyle & Dean, 1965; Hall, 1963), or (b) communicate a negative message (e.g., be perceived as condescending or symbolic of the recipient's lower status--Henley, 1973).

The past research on favorableness of reactions to interpersonal touch has failed to consider the effect of an important source of tactile stimulation: no research has dealt with the effect of momentary tactile contacts between interacting strangers (e.g., clerks handing change to customers). The purpose of this study is to investigate the effect of such a touch for the recipient's affective state and evaluative responses. In addition to providing information about the affective consequences of one of the most common forms of tactile stimulation, the research will also investigate the effects of this type of touch on the touch recipient's evaluations of the toucher, and his evaluations of associated stimuli (i.e., the physical environment).

In the present experimental context the manipulation of tactile contact between strangers consists of a library clerk touching an individual while in the process of handing back the person's library card. As with other tactile contacts between interacting strangers, the present touch has the potential of being perceived as intentional, and hence as meaningful. Further, it is not unduly intimate and doesn't lend itself to being interpreted as a negative message (Heslin, 1974a). Therefore, it was hypothesized that a momentary touch between interacting strangers would be experienced as a mildly pleasant stimulus, and that it would arouse positive affect. Further, and in line with the Byrne-Clore (1970) prediction that affective state determines evaluation of associated stimuli, the affect precipitated by being touched was expected to generalize to elicit positive evaluations of the toucher and the environmental setting.

Method

Subjects

One hundred and one Purdue University students (52 males and 49 females)

who were checking out books from the University library served as subjects. The prerequisite for inclusion in the study was that a potential subject be an undergraduate student who was alone as he or she approached the check-out counter. Each individual who met these criteria was included in the experiment. The experiment was conducted during weekday mornings, afternoons, and evenings.

Design

A 2 (touch-no touch) x 2 (sex of confederate) x 2 (sex of subject) between-subjects design was employed in which each male and female subject was randomly assigned to the experimental conditions. Three female library clerks and one male library clerk took part in the experiment, and each was blind with respect to the experimental hypotheses.[1]

Procedure

For alternate half-hour periods, the library clerks either touched or did not touch each subject for whom they checked out books. In the no touch condition the clerk handed the subject's library card back without making physical contact with the individual's hand. For the touch condition, the library card was returned to the subjects in such a way that the clerk placed his or her hand directly over the individual's palm, making physical contact. This position was maintained for about one-half of a second.

Upon completion of the librarian-subject interaction, the experimenter approached the subject, stated that the library was doing an evaluation of its personnel and facilities, and asked the subject if he or she could spare a few minutes to fill out some questionnaires. Subjects were informed that their responses would be kept confidential, and that ratings would have no negative repercussions for library employees. The rate of refusal to participate in

the experiment by individuals who were approached by the experimenter was minimal, with no differences in frequency between conditions. After a subject agreed to participate he or she was taken to a private room and was introduced to a second experimenter, who gave the individual a folder containing the dependent measures. After the scales were completed, this experimenter debriefed the subject as to the purpose of the experiment; post-experimental interviews revealed that none of the subjects expressed suspicion with respect to the role of the clerk.

Dependent Measures

Feelings scale. A feelings scale similar to one previously established as a self-report measure of affect by Byrne and Clore (1970) and Griffitt (1970) was used as a measure of affect.[2] This scale consists of five evaluative bipolar adjective pairs arranged as seven-point scales. Responses to the items (i.e., happy-sad, negative-positive, comfortable-uncomfortable, bad-good, pleasant-unpleasant) are summed to yield a measure of affect along a positive-negative dimension ranging from 5 (most negative) to 35 (most positive).

Library clerk evaluation scale. Four seven-point bipolar adjective items were included to measure the subject's evaluation of the clerk who had checked out his or her books. The four items (i.e., positive-negative, helpful-not helpful, good-bad, friendly-unfriendly) were all highly intercorrelated (all correlations above .50), and are summed to yield a single measure of evaluation of the clerk ranging from 4 (most negative to 28 (most positive).

Evaluation of library environment. Four seven-point bipolar adjective items were included to measure the perceived positiveness of the library environment. The four items (i.e., positive-negative, attractive-unattractive, comfortable-uncomfortable, good-bad) tap a single aesthetic quality dimension

as indicated by a principal components analysis (Fisher, 1973), and are summed to constitute an index of perceived positiveness of environmental quality ranging from 4 (most negative) to 28 (most positive).

Results

A 2 x 2 x 2 unweighted means analysis of variance (Winer, 1971) was performed for each of the dependent measures.

For the feelings scale, a main effect for touch was observed ($F = 4.21$, $df = 1/93$, $p < .04$), which indicates that more positive affect was experienced by those who were touched (27.9) than by those who were not touched (25.7). This main effect was qualified by a weak touch by sex of subjects interaction ($F = 2.69$, $df = 1/93$, $p < .10$), which indicates that the more positive affect observed in touch conditions was accounted for mainly by the response of the female subjects. The Newman-Keuls multiple range test on the interaction shows that the females who were touched had a significantly higher affect rating than the other three groups, which did not differ from each other.

Insert Table 1 about here

Similar results were obtained for the evaluation of the library clerk. Those subjects who were touched rated the clerk significantly more positively (23.4) than those who were not touched (21.1) ($F = 6.02$, $df = 1/93$, $p < .02$). Again, a nearly significant touch by sex of subject interaction ($F = 3.28$, $df = 1/93$, $p < .07$) indicates that the difference was most evident for female subjects. The only significant difference with the Newman-Keuls procedure was between the females who were touched and the females who were not touched.

Insert Table 2 about here

For the evaluation of library environment scale only the sex of subject by touch interaction was significant ($F = 4.76$, $df = 1/93$, $p < .03$). The pattern of this interaction indicates that males rated the library more favorably when they were not touched while females liked the library environment better when they were touched; however, the Newman-Keuls test indicated that the individual means did not differ significantly.

Insert Table 3 about here

To determine whether the effect of touch is dependent upon conscious perception of the touch stimulus, subjects in touch conditions were asked during the debriefing if they had perceived the touch by the library clerk. Only 57% indicated that they had. To assess the possibility that the responses of subjects who were aware of the touch differed from the responses of those who indicated no such awareness, for each of the dependent measures t-tests were run to test the differences between the means for the two groups. No differences between the "aware" and the "unaware" groups were found for any of the dependent measures. Thus, the effect of being touched was evidenced even when the touch was not perceived.

Discussion

As hypothesized, a casual touch of very short duration in a Professional/Functional situation generally had a positive effect on the recipient and on his evaluations of the toucher and the setting. Specifically, it was found that subjects who were touched experienced a more positive affective state and made more positive evaluations of the library clerk than subjects in no-touch groups. For the evaluation of the library environment, however, the pattern

of results for the effect of touch differed for males and females. While none of the means differed significantly, females tended to evaluate the library environment more positively in touch conditions, while males tended to evaluate the library more positively in no touch conditions.

The pattern of the marginally significant interactions for the measures of affective state and library clerk evaluation (i.e., that the positive effects of touch were accounted for mainly by the female response), as well as the pattern for the significant interaction for the ratings of the library environment indicates that while the response to the touch condition was uniformly positive for females, it was more ambivalent for males. This fits well with the previous finding that females touch and are touched by significant others more than males, and that within any relationship, females report being touched more than touching (Jourrard, 1966). It is suggested that females, who have had more experience as recipients of touch from significant others, may be more comfortable when receiving momentary interpersonal touches from strangers than males. In effect, for females, the touch employed in this study acts as a "Midas" touch which affects the recipient positively both in terms of personal feelings and in terms of evaluation of the environment.

The failure to observe any effects for the sex of the toucher in the present experiment was at first surprising, but in retrospect the explanation may lie in the quality of the Professional/Functional touching situation employed in the present study. Considering the asocial and asexual nature of the relationship between a clerk and an individual checking out books, the impact of the touch manipulation on the subjects may have been limited to that of a touch from a clerk whose sexual identification was not particularly relevant. It might be expected that in a more social situation the sex of

the toucher would have a more powerful effect on the recipient of the touch.

A potentially important finding of the present study was that touch recipients who were not consciously aware of being touched did not differ significantly on any of the dependent measures from those who were aware of being touched. Thus, whether or not the touch was perceived, it had a positive effect on the recipient's affective state and evaluation of the clerk, and, for females, a positive effect on the evaluation of the library environment. There are several potential alternative explanations for this finding. First, there is a possibility that subjects who reported that they were not touched distorted their report rather than their perception, but observation of these respondents yielded no indication of why they would withhold such information. A second possibility, that the subjects who reported they did not perceive the touch, were not, in fact, touched, is not tenable because independent observers confirmed that the touch was made. A third alternative explanation is that the individuals who failed to perceive the touch are people who customarily receive so many touches that being touched does not represent a significant occurrence to them, and consequently, they did not notice the manipulation.

It is our contention, however, that the best explanation for failure to perceive the touch manipulation is that the touch employed in this experiment was so minimal as to be hardly noticed by the recipients. If this is the case, then the potency of the act of touching another person becomes very striking: a touch of less than one second has the power to make people feel better, and this effect can generalize to evaluation of associated stimuli. The observed relationship between affective response to touch and subsequent evaluative judgments of associated stimuli is generally in accord with the prediction of

the Byrne and Clore (1970) reinforcement-affect model of evaluative responses. In terms of the model, the affect induced by touch is conceptualized as mediating subsequent evaluative responses to associated stimulus objects (i.e., evaluations of the clerk and the library environment).

Finally, to some extent, previous research on the effects of touch has been hampered by lack of appropriate methodology (Heslin, 1974b). The present study demonstrates a means of studying the effect of touch in which the manipulation is under experimental control yet in a real world setting that is not likely to cause unnatural behavior on the part of participants.

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Footnotes

1. Independent ratings confirmed that each of the clerks was above average in physical appearance for a member of their respective sex. Forty subjects were subsequently run using two additional male clerks to verify that idiosyncratic variables were not operating. There were no differences for the individual clerks.

2. The present feelings scale differed from the one used by previous investigators in that the item "high-low" was omitted, due to the possibility of confusion on the part of subjects as to its interpretation.

Table 1*

Positiveness of Affective State

	Sex of Subject	
	Male	Female
Touch	26.1^{b}	29.7^{a}
No touch	25.6^{b}	25.8^{b}

*Means with common subscripts do not differ at the .05 level as indicated by the Newman-Keuls procedure.

Table 2*

Positiveness of Library Clerk Evaluation

	Sex of Subject	
	Male	Female
Touch	$22.3^{a,b}$	24.5^{b}
No touch	$21.7^{a,b}$	20.6^{a}

*Means with common subscripts do not differ at the .05 level as indicated by the Newman-Keuls procedure.

Table 3

Positiveness of Library Environment Evaluation

	Sex of Subject	
	Male	Female
Touch	15.6	17.6
No touch	18.7	15.7